

CHAPTER 7A

DAMPPROOFING AND WATERPROOFING

7A-01. SUBMITTALS

a. Required certificates of compliance and material manufacturers installation instructions must be approved before scheduling the preparatory inspection.

b. Specifications may permit either asphalt or coal tar pitch materials and either cold or hot application methods. The contractor's submittal will indicate his selection.

7A-02. SURFACE PREPARATIONS

a. Cleanliness and Smoothness

(1) Concrete and masonry surfaces shall be pointed flush.

(2) Has all excess mortar or concrete been removed from surfaces to be dampproofed or waterproofed?

(3) Have rough or high spots been ground smooth?

(4) Is surface free from all foreign matter including sand, soil, and dust?

b. Dryness

Check dryness of the surface to be coated. Bitumen must fully adhere to surface. Use hot bitumen foaming and strip test to determine dryness if in doubt.

7A-03. DAMPPROOFING

a. Plans and Specifications

Check both plans and specifications carefully for extent of dampproofing. There is a tendency to short-change on the height of dampproofing on exterior of walls below grade.

b. Application

(1) See that the ambient temperature is above 40°F.

(2) Always apply dampproofing before furring on interior of walls.

(3) Check for application of approved prime coat for both tar and asphalt dampproofing systems, and for asphalt waterproofing system. Check temperatures of materials.

(4) Check coating for breaks after a surface has been dampproofed.

(a) Check surface air voids in monolithic concrete.

(b) Reseal all voids not sealed by original application.

(c) Hot or cold system each requires two coatings.

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7A-04. WATERPROOFING

a. General

- (1) Check the requirement for primer.
- (2) See that the ambient temperature is above 400.

b. Application - Bituminous System

(1) The felt or fabric plies and pitch or asphalt waterproofing are applied in the same manner as for built-up roofing.

(2) Hot bitumen vapors are flammable, open flame and other sources of ignition are prohibited in enclosed areas. Adequate ventilation must be provided. In addition vapors from tar products are toxic and irritating. Adequate personal protective measures must be taken. Asphalt and tar kettles are not to be permitted in enclosed structures. Kettle temperature must be thermostatically controlled.

(3) Carefully check the application of felt, especially at all locations requiring the two additional fabric reinforcing plies.

(4) Carefully check the installation of flashing and the lapping and mopping of waterproofing into flashing and around items passing through the waterproofing.

(5) Check the application of the waterproofing for exact conformance with the specification regarding:

(a) Weight of moppings and final coating.

(b) Bitumen manufacturer's recommended application temperature.

(c) Brooming in of the membrane.

(d) Required nailers on vertical surfaces.

(e) Flashing receiver at top of wall to eliminate exposed joint.

(f) Requirement for reinforcing at control joints.

(6) Make sure that all waterstops, flashings, etc. have been correctly installed to provide a watertight job.

(7) See that membranes are always protected from damage. Check the requirement for protection board to be installed where backfill is to be placed. Check for:

(a) Type of board required.

(b) Method of bonding board to waterproofing.

c. Application - Bentonite System

(1) Submittal must have all of the information required. Examine the printed application instructions closely.

(2) Manufacturers written proof of performance must also be received.

d. Application - Metallic Oxide Waterproofing

(1) Test area

(a) Selection of test location is important for a workmanship demonstration.

(b) Access required until all waterproofing is complete.

(2) Special surface preparation.

(a) Roughen concrete surfaces.

(b) Patching shall be as specified. Roughen patched areas.

(c) Check patching at construction joints.

(d) Check calking at penetrations.

(e) Check for required continuous grooves at intersections.

(3) Two coat application required.

(4) Check for adequate curing.

(5) Protection of waterproofing.

(a) Check grout mix formula for each coating.

(b) Finish of the top coating will be to receive specified finish material.

(c) Seven day curing as with concrete.